

Bio for Michael M. Knetter

Michael Knetter is an Associate Professor of Business Administration at the Tuck School of Business at Dartmouth College and a Research Associate at the National Bureau of Economic Research in Cambridge, Massachusetts. He has also served as the Senior Staff Economist on the Macroeconomics Desk for the President's Council of Economic Advisers in both the Bush and Clinton Administrations. Professor Knetter was a Commissioner on the Defense Conversion Commission which authored "Adjusting to the Drawdown" a report describing the impacts of **military** spending cuts on the economy.

Professor Knetter's teaching and research interests are in the area of international economics-specifically, how exchange rate fluctuations and trade policy changes have influenced pricing behavior, competition, and labor market outcomes in international markets. He is currently collaborating on a book entitled "The Impact of Globalization on U.S. Workers." His research has been supported by grants from the National Science Foundation, the Lynde and Harry Bradley Foundation, the Russell Sage Foundation, and the German Marshall Fund. His work is published in many academic journals and books, including *American Economic Review*, *Journal of Economic Literature*, *Journal of International Economics*, *Journal of Money, Credit and Banking*, and *Management Science*. He serves on the editorial board of the *Journal of International Economics*.

Professor Knetter received his Ph.D. in Economics from Stanford University in 1988. Prior to attending Stanford, he received his undergraduate degree in Economics and Mathematics **from** the University of Wisconsin Eau Claire, where he was recently named Outstanding Recent Alumnus for his professional accomplishments.

Testimony of Michael M. Knetter

Prepared for the U.S. Trade Deficit Review Commission

Panel on “Impact of Trade on the Nation’s Manufacturing Base”

October 29, 1999 .

Globalization is frequently identified as a primary force affecting the structure and development of the U.S. economy as we enter a new millenium. This testimony will offer my views on several key issues relevant to the USTDRC mission and to this session on the manufacturing base in particular. I will structure my testimony around several main ideas that are supported with facts and arguments.

1. Bilateral and overall trade deficits do not provide a reliable signal about the openness of markets or the health of an economy.

It is commonplace to read alarming newspaper reports about our bilateral deficits with certain trading **partners**—e.g., Japan, China, and Mexico—and our overall trade deficit. The reporting would lead one to think that deficits are “bad” and that countries with which we run deficits are not allowing us fair access to their markets. It is perhaps because of this perception that the trade deficit is **emphasized** in the commission’s title.

*Bilateral deficits do not provide a good signal about the openness of markets. The fact that Japan exported 56% more to the U.S. than it imported from U.S. in 1997 (see Table 1) is often used to argue that Japan is closed to U.S. goods. However, the data also show that for that same year, the U.S. exported 145% more to Australia than we imported **from** Australia. Our percentage surplus with the Netherlands was even higher, at 158%. No reasonable person would argue that the U.S. is closed to Australian and Dutch goods. Therefore, we cannot use the imbalance with Japan to conclude they discriminate against*

us. It is still possible that they do, but the devil is in the details, not in the aggregate bilateral trade flows.

What causes variation in bilateral balances? The principle at work--comparative advantage-also explains your own ongoing deficit with your hairstylist. She offers a service that you demand, but she probably buys nothing from you in return. However, your deficit with her is probably more than offset by your surplus receipts elsewhere. Bilateral deficits are the rule in modern economies **with** extensive specialization.

The same principle works, to a lesser degree, with countries. Australia exports a huge bounty of natural resources to Japan (where such resources are scarce), but Australia demands much less from Japan. Meanwhile, the U.S. has no need for Australia's natural resources, we have our own. But Australia demands a good amount of U.S. output. Hence, the U.S. runs a surplus with Australia while Japan runs a deficit. In a world with many countries, it would be shocking to find bilateral balance. Free markets will generate bilateral imbalance.

What about the overall trade deficit? Is that a problem? An overall trade deficit means that as a nation we are importing more than we are exporting. When we do this, we must make up the difference by selling assets to foreign residents or taking out loans from them. They don't give us goods for free!

This is the same principle that applies to a household: When we spend more than we earn in income, we must make up the difference by going into debt or selling off some worldly possessions. Most households run large deficits at certain points of the lifecycle-when buying a home, putting children through college, or other periods of extraordinary expense. It is clear why a household might go into debt, and seeing another household in debt should not alarm us. For one thing, *it's their debt*, not ours! And even if they are too far in debt, the main consequence is that they must tighten their belts in the future and perhaps that those who lent to them will need to do the same.

How about a country? When we add up the balance sheets of all households, firms, and governments in a country we might find that the country in the aggregate is borrowing from abroad-i.e., it is running a trade deficit. Our instinctive reaction should be: So what? If the individuals, firms, and governments who have gone into debt had their eyes open, then there is no reason for the rest of us to panic.

The same motives for household indebtedness apply to countries. Countries may go into debt when they are undergoing major industry restructuring. For example, many emerging market countries run overall deficits as foreign investment pours in (in the form of loans or equity stakes) to finance their industries of the future. Another reason a country could run a current account deficit is if many of its households find themselves at that point of the lifecycle where they are more prone to be net borrowers than net lenders.

Either of these explanations might fit the U.S. today. The U.S. certainly looks like it is developing many of the industries of the **future—e.g.**, biotechnology, software, telecommunications, and e-commerce. When much of this activity is occurring at once, it might be natural for a country to borrow from other countries that lack sufficiently attractive investment opportunities. Furthermore, trading partners, such as Europe and Japan, have demographic trends that demand more saving than is needed in the U.S. (i.e., their retirement crises make our Social Security problem look minor by comparison).

Is the U.S. deficit “too big”? Better yet, has the accumulation of years of trade deficits mortgaged our future? At this point, it seems the answer is no. We should begin to worry if the cost of servicing the debt is high or increasing rapidly. While the share of domestic national income going toward foreign debt service went from negative 2% (foreigners were paying net interest to us) around 1980 to about 3% today (we are paying them), the number is not at alarming levels. Considering that many households’ debt service is 20% or more of annual income, it seems that the national debt has not yet reached frightening proportions. But this dimension is worth watching carefully.

manufacturing's share **actually** rose from 18.6% to **18.8%**! (Table B-13, 1999 Economic Report of the President.)

The employment and output data together have a positive implication: Productivity growth in U.S. manufacturing has been substantially higher than productivity growth in the rest of the economy. We are getting more output per worker today than we did in 1960—by a huge margin.

- 6. The shift in employment away from manufacturing is not an unprecedented development. Other countries are undergoing a similar transformation today, and we have experienced similar structural shifts in our past.

Many people are troubled by the prospect of shrinkage of employment in the manufacturing sector. After all, aren't those jobs the good jobs? Doesn't the decline of manufacturing jobs spell doom for our future in the international economy?

These are fair questions. In my opinion, the contemporary pessimism about the U.S. manufacturing base has a very close parallel in our history. Over a century ago, the mechanization of agriculture set off many of the same reactions we see in manufacturing today. Mechanization raised productivity, which increased output per worker. Not **all** of the increased output could be absorbed due to inadequate demand for food. As a result, the agricultural workforce shrank. People were concerned by that development, since agriculture was the backbone of the U.S. economy at the time and people could not imagine what could take its place. But the economy didn't fall off a cliff. To the contrary, today we look back on the mechanization of agriculture as one of the great economic advances in the history of man. Most of those workers were absorbed by job growth in manufacturing and even services. An important step in early economic development is the transition from agriculture to manufacturing in terms of employment.

I suspect that thirty years from now, we will have a similar perspective on the productivity revolution that we are seeing in manufacturing today. It appears that the

transition **from** manufacturing to services is pervasive in advanced economies. That seems hugely a consequence of growth in productivity triggered by computerization,-- although part of it may be explained by “outsourcing” some of manufacturing goods to other countries.

An uncomfortable aspect of these developments is that it is hard to predict how market forces will change manufacturing in the future. In particular, we cannot say which industries will come under pressure in the years **ahead**. That leads some people to call for government intervention in the marketplace aimed explicitly at preserving certain “critical industries.”

7. Even if it were possible to objectively identify “critical industries”, which is doubtful, political forces would likely turn any organized attempt at industrial policy into a pork barrel.

There is no denying that many government procurement programs, especially Department of Defense procurement, have fostered the development of key private industries. There is no denying that subsidization can help an industry develop. The question is whether we can accurately determine which industries are “undervalued” by the private market. The debate over which industries offer the greatest potential for spillovers is likely to have few objective criteria. And criteria will be plentiful enough that other considerations, such as electoral calculations, might come to play an increasingly important role in industrial policy.

The natural political outcome we would expect is that large industries get the most support. Large industries are easily defined as critical since, by definition, many people depend on them for supplies and employment. But large industries are not **always the** most deserving of new capital. Success in the past does not guarantee **high** rates of return in the future. Industrial policy could easily lead to industrial stagnation. Government industrial policy in Japan and Korea has probably played a significant role in the problems we have witnessed in those countries in recent years. Investment rates have

Furthermore, there are two reasons to think that this calculation exaggerates the true impact. First, if the U.S. economy were operating near capacity, an increase in demand from Japan would probably increase prices of U.S. goods, rather than output. At present, the U.S. labor market is very tight. So tight that the Fed now contemplates raising interest rates to squelch any sign of an increase in demand **for fear** it will be inflationary. Second, there is the fact that Japan's increased imports would need to be offset by a reduction in Japan's net lending to the rest of the world. Presumably, this would increase U.S. interest rates somewhat, which would reduce demand **from** other sources and reinforce the crowding out.

The same reasoning we have applied to the Japanese market applies to other foreign markets. In fact, the argument becomes stronger as cumulative export demand increases since the crowding out issue will surely become dominant at some point.

4. While increased access to foreign markets would not have large aggregate implications for the U.S. economy, it will have important **sectoral** effects.

To say that increased foreign market access would have small *aggregate* effects is not the same as saying it will have little *sectoral* effect. Increased exports would matter for the composition of output, since exports are not typical of the overall mix of output in the U.S. Our exports are concentrated in high technology industries (e.g., biotechnology, pharmaceuticals, computer hardware and software, aircraft, telecommunications services and equipment, financial services, etc.) and agriculture. This is where U.S. output would be likely to grow if foreign markets opened up more to trade.

In a full employment economy, such as ours today, growth in some sectors implies shrinkage in others. There is no free lunch. The shrinkage would likely occur in industries where global excess capacity has dictated falling prices and profits, such as steel and autos.

Any shift away from heavy and light manufacturing and toward export sectors would also have implications for labor demand. Export growth might serve mainly to increase the demand for highly-educated workers in the U.S., exacerbating the trend toward inequality in the labor market that has developed in recent years. Greater foreign market access sounds great, but chances are it would not be a panacea for blue-collar workers in traditional manufacturing industries,

5. The key facts about aggregate performance of U.S. manufacturing are that employment is stagnant, while output and productivity are rising in absolute terms.

While unemployment rates are generally low in the economy, employment growth has been completely lacking in the manufacturing sector for several decades. According to the 1999 Economic ***Report of the President***, employment in manufacturing rose from 16.8 million in 1960 to 18.7 million in 1998, with most growth coming in durables (as opposed to non-durables) manufacturing. On the other hand, manufacturing employment has fallen from 31% of total employment in 1960 to merely 14.9% as of 1998. Basically, growth in U.S. employment since 1960 has been outside of the goods-producing sector.

Many people extrapolate from the employment data to conclude that the U.S. is “deindustrializing.” But the truth of the matter is that manufacturing, mining, construction, and agriculture together accounted for nearly \$2 trillion worth of U.S. output in 1998. That volume of output is bigger than all but a handful of national economies in the world.

The level of output of manufacturing has risen substantially since 1960 in nominal and real (inflation-adjusted) terms. But manufacturing’s ***share*** of total output has fallen a bit. In 1960, manufacturing output was 27% of U.S. nominal GDP, while in 1997 it was 17%. Since prices of manufactured goods have risen by less than prices of other goods, the decline of manufacturing as a share of real output is much smaller. Data on real output by industry are only available from 1977 to 1997, but over that period of time,

As with any household or business decision to take on debt, it would be nice to do an analysis of whether the specific expenditures being financed by the national debt are-justifiable. Unfortunately, we cannot identify the extent to which U.S. foreign borrowing financed consumption, investment, or government spending. It is important to keep in mind that everyone who borrowed money did so voluntarily. Unless there is a market failure lurking in credit markets that leads people to borrow beyond prudent levels, we should all just worry about our own financial situation,

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The one exception to this rule is perhaps government fiscal policy. There is a suspiciously high correlation between the rise of foreign indebtedness and the rise in the Federal government budget deficit. It is in the nature of politics perhaps that our elected officials are tempted to provide us with what we want today and leave the bill for the future. Ideally, private actors would internalize the future tax liability that a government budget deficit represents-e.g., by increasing private saving today to meet these future obligations. The aggregate data suggest that this has not happened.

The messages so far are as follows. (1) Even in a perfectly open world economic system, some countries will run overall deficits and others will run overall surpluses. (2) We cannot look at deficits or surpluses to determine whether foreign markets are open. (3) There is nothing virtuous about balanced trade and nothing inherently wrong with deficits or surpluses. (4) What we must monitor is overall indebtedness and debt service in relation to the size of the economy.

2. Even though U.S. trade deficits are not a symptom of closed foreign markets, there **me** reasons to think that many countries protect certain sectors that particular U.S. firms might otherwise penetrate.

The volume of trade is a poor indicator of trade barriers. Product prices are a much better indicator. The logic is simple. If a country erects a meaningful trade barrier, then we ought to find that prices for a given product are higher in that country. Trade barriers

(whether overt or subtle) presumably keep out the most efficient suppliers or limit their access. This allows inefficient domestic producers into the market and increases prices.

High domestic prices are the legitimate smoking gun that signals protection of many markets in Japan. This fact has been documented in research by the U.S. Department of Commerce and MITI, Marcus Noland, myself, and others. Some contend that prices are higher in Japan due to high distribution costs, but some research has found that the problem is more than that alone. Therefore, I **conclude** that Japan does protect more of its domestic industries by a greater margin than most other advanced economies. Developing countries tend to have even more protection, but those barriers have fallen rapidly in recent years.

3. Although foreign markets may be closed to varying degrees, the facts suggest that reductions in trade barriers in foreign markets would have a very limited effect on aggregate income and employment in the U.S.

What macroeconomic effect would a more open Japanese market have on the U.S.? In 1997, Japan had a trade surplus of about \$82 billion according to the IMF Direction of Trade Statistics. For sake of argument, let's imagine that the surplus would vanish if the Japanese market were open (even though that is an overstatement for reasons noted above). In 1997, the United States was responsible for 22.4% of all imports to Japan. If that share were maintained in the face of an \$82 billion increase in Japanese imports, the U.S. would experience an \$18.4 billion increase in its exports.

If we made the rather extreme assumption that this \$18.4 billion increase in exports represented a pure increase in GDP, that would still only amount to a one-time gain in real GDP of 0.2%. If we assume that these exports obey the standard split between labor and capital income in GDP ($\frac{2}{3}$ labor and $\frac{1}{3}$ capital), it would increase labor income by about \$12 billion. If the average labor cost were \$50,000 per worker, this would generate about 240,000 jobs. That is about the number of new jobs added in a typical month in the U.S. economy.

been very high, but capital keeps getting funneled to low return activities. While an industrial policy might work well in the short **run**, when there might be agreement about the industries that are most essential, the problems with an organized industrial policy would grow more severe with time as needs changed.

In summary, to say that defense spending created some new and valuable private industries does not imply that industrial policy will provide good value. The amount of industry development that was generated per dollar of **spending** was probably quite small. It is not enough to say that the market is not perfect in allocating capital in order to justify industrial policy. One needs to be able to believe that government allocation of capital would be more efficient than private allocation. History teaches us many sobering lessons on this point.

8. The U.S. economy appears remarkably strong entering the new millenium, based on traditional indicators such as GDP growth, unemployment, employment, market capitalization, and inflation.

Everyone has seen the glowing articles about the current state of the overall U.S. economy, which has been variously described as a “Miracle Economy”, a “Jobs Machine”, and other colorful monikers. Based on those descriptions alone, we can be pretty sure that on average, things look quite good for the U.S.

To say that things are good on average does not mean that every sector and every worker are benefiting from economic expansion. There is variation around the mean. Plant closings still happen, workers are laid off or otherwise unemployed, and families do suffer. It is impossible to **determine** the separate contributions of technological change, international trade, government policy, and changes in consumer preferences in generating these adverse outcomes for individuals. More importantly, a full employment economy implies that these adverse outcomes are only one side of the coin. The other side is the growth of the new industries and new jobs that take place in other sectors.

Conclusion

In summary, there are several important questions that the commission must address to fulfill its mission. First, what level of foreign indebtedness or foreign debt service would constitute an undue risk for the U.S. economy as a whole? The USTDRC should arrive at a view about where the danger zone is. Second, what factors are most likely to be contributing to our ongoing indebtedness? Perhaps people are saving too little because they overestimate the value of their Social Security **benefits**. We should keep our focus on the incentives to save, rather than the incentives to trade. And most importantly, how can we better assist people who are hurt by industrial transformations-whether they are precipitated by trade, technology, or something else? To prevent transformation that is driven by either trade or technology would be to throw the baby out with the bath water. Supporting the continuation of declining industries is not a desirable solution for protecting jobs, since such support comes at the expense of emerging industries which offer higher returns to workers and investors alike.

Table 1. 1997 Bilateral Export/Import Ratios for Japan and the U.S.

	Japan	U.S.
Australia	0.55	2.45
Germany	1.45	0.55
Netherlands	5.00	2.58
China (Mainland)	0.52	0.19
U.S.	1.56	
World	1.24	0.77

Note: Table entries present the ratio *of the* column country's exports to the row country to the column country's imports from the row country.

Source: International **Monetary** Fund's Direction of Trade Statistics.